

$$\begin{aligned}
& a_1 a_2 S(g_i I_{i,k} f_j I_{j,k}) S(f_i I_{i,k} g_j I_{j,k}) \\
& - e_1^2 e_2^2 S^2(f_i I_{i,k} g_j I_{j,k}) \\
& ((b_1 - a_1) b_2 - a_2 b_1 + a_1 a_2) S(f_i^2 I_{i,k} I_{i,l} g_j^2 I_{j,k} I_{j,l}) \\
& (a_1 b_2 - a_1 a_2) S(f_i I_{i,k} g_j^2 I_{j,ip} I_{j,k} f_l I_{l,ip}) \\
& (a_2 b_1 - a_1 a_2) S(f_i^2 I_{i,ip} I_{i,k} g_j I_{j,k} g_l I_{l,ip}) \\
& .
\end{aligned}$$